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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/749,482 | 12/26/2000 | Byoung-Joon Lee | 2386.2009-000 | 4367 |
| 21005 | 7590 | 09/28/2004 | EXAMINER | |
| HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133 | | | GEORGE, KEITH M | |
| | | ART UNIT | PAPER NUMBER | 2663 |

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/749,482 | LEE, BYOUNG-JOON |
| | Examiner Keith M. George | Art Unit 2663 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 December 2000.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 December 2000 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The method described in claims 1-9 appears to contain two nested loops. In claim 1, it appears that steps c-e are repeated until terminated by step e and that steps b-f are repeated until terminated by step f, however there is no language in the claim that indicates a looping function. The claim reads as simply steps a-f, which makes steps e and f unclear because it would be understood that steps b and c would be terminated upon moving on to the next step. Claims 2-9 contain similar language without the requirement of looping back to other steps and are similarly rejected.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2663

4. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Lothberg et al., U.S. Patent 6,775,295, hereinafter Lothberg.

5. Referring to claims 1, 4, 7, 8 and 9, Lothberg teaches a scalable multidimensional ring network (MRN) including a plurality of nodes that are arranged into a plurality of node sets along the same X, Y, or Z axes (selecting a node identification algorithm). For clarity, FIG. 3 shows an isolated view of only the three bi-direction rings 54, 56 and 52 that connect node 1 to other nodes in the same X, Y and Z axes, respectively (selecting an initial network processing node in the scalable MRN as a first node (node 1) in a new ring). Node 1 is connected by ring 54 to nodes 2 and 3 in the same X axis (making the calculated node the selected node and terminating the applying step when the selected node is the initial processing node, thereby creating the new ring). Node 1 is connected by a second ring 56 to the nodes 4 and 7 located on the same Y axis, nod 1 is also connected by a third ring 52 to the nodes 10 and 19 located on the same Z axis. One or more of the ring networks can also interconnect nodes that are logically arranged along a diagonally extending line within the same plane or a diagonal line that extends through the planes. For example, FIG. 3 shows dotted line 57 representing a ring network coupling nodes 1, 5 and 9 together (terminating Step (b) when all nodes in the scalable MRN have been processed according to steps (b) through (e)) (column 3, lines 21-45).

6. Referring to claims 2 and 5, Lothberg teaches the method described in reference to claims 1 and 4 above where it was clearly taught that the nodes connected in a ring are the nodes that are one hop away from the first node (node 1) in the X, Y, and Z axes (figures 2 and 3; column 3, lines 29-31).

Art Unit: 2663

7. Referring to claims 3 and 6, Lothberg teaches the method described in reference to claims 1 and 4 above and also teaches that any network router, switch or other device used for transferring information in a network can be used with the architecture shown in FIGS. 1 and 2 (network processing node type and cabling type) (column 3, lines 1-4). And also teaches in figures 1 and 2 that the location and distance of the nodes is taken into consideration when creating the MRN.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Han et al., U.S. Patent 6,505,289, teaches an apparatus and method for interconnecting 3-link nodes and parallel processing apparatus using the same (title) (see abstract).

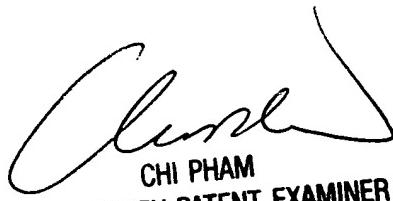
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 571-272-3099. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Keith M. George
21 September 2004



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 9/23/04